

**Soil, Ground Water and
Sediment Standards for Use Under
Part XV.1 of the
*Environmental Protection Act***

March 9, 2004

Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the *Environmental Protection Act*

March 9, 2004

Copyright: Queen's Printer for Ontario, 2004
This publication may be reproduced for non-commercial
purposes with appropriate attribution.



Printed on recycled paper

ISBN

PIBS



Ontario

TABLE OF CONTENTS

TABLE OF CONTENTS	2
INTRODUCTION	3
<i>HOW TO READ THESE TABLES</i>	3
<i>Tables 1 to 5</i>	3
Notes on Table 6	4
<i>Table 6</i>	4
Table 1: Full Depth Background Site Condition Standards	5
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition.	11
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition.	17
Table 4: Stratified Site Condition Standards in a Potable Ground Water Condition.	23
Table 5: Stratified Site Condition Standards in a Non-Potable Ground Water Condition	29
Table 6: Soil Extract and Ground Water Standards to Determine Whether a Property is a “Shallow Soil Property”	35

INTRODUCTION

This document, consisting of Tables 1 to 6, sets out the prescribed contaminants and the applicable site condition standards for those contaminants for the purposes of Part XV.1 of the *Environmental Protection Act*. The Tables can be summarized as follows:

- Table 1: Full Depth Background Site Condition Standards.
- Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition.
- Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition.
- Table 4: Stratified Site Condition Standards in a Potable Ground Water Condition.
- Table 5: Stratified Site Condition Standards in a Non-Potable Ground Water Condition.
- Table 6: Soil Extract and Ground Water Standards to Determine Whether a Property is a "Shallow Soil Property".

HOW TO READ THESE TABLES

Tables 1 to 5

Tables 1 to 5 set out prescribed contaminants by listing contaminants in the column of rows that has the heading row entitled "Contaminants". Tables 1 to 5 set out prescribed standards for these contaminants by indicating in the appropriate locations the maximum concentrations of the contaminants in soil, ground water and sediment, which are expressed in a number that is to be read as µg/g dry weight for soil and sediment, and as µg/L for ground water, unless otherwise indicated in the table.

The standard for a property that is applicable for a type of property use in a particular medium, can be found in the row named for the contaminant and in the column that has the heading row that indicates the applicable medium and the type of property use for which the record of site condition is filed.

If a single number appears in a cell in the table, it is the maximum concentration of the contaminant, which applies to both a property that is considered coarse textured soil and a property that is considered medium and fine textured soil. If two numbers appear in a cell in the table, the number in parentheses is the maximum concentration of the contaminant, for a property that is considered medium and fine textured soil, and the other number is the maximum concentration of the contaminant, for a property that is considered coarse textured soil.

A contaminant that is listed and for which the abbreviation "N/V" appears in the cell, instead of a number representing a maximum concentration, is a contaminant for which a standard is not prescribed. The abbreviation "N/V" means "no value".

A contaminant that is listed and for which the abbreviation "N/A" appears in the cell, instead of a number representing a maximum concentration, is a contaminant for which a standard is not prescribed because no standard is required. The abbreviation "N/A" means "not applicable".

Notes on Table 1

Table 1 sets out the “Full Depth Background Site Condition Standards”.

The soil standards in Table 1 are background values derived from the Ontario Typical Range values for the land uses indicated and are considered representative of upper limits of typical province-wide background concentrations in soils that are not contaminated by point sources.

The groundwater standards in Table 1 have been derived from the effects-based Provincial Water Quality Objective, 1999, using Table 6, which includes the Ontario Drinking Water Standard as an upper limit and Method Detection Limit as a lower limit. These values are within the range of measured groundwater data from the 1998 Drinking Water Surveillance Program and are considered to be generally achievable in site situations typical of background while providing a level of human health and ecosystem protection consistent with background conditions and protective of sensitive ecosystems.

The sediment standards in Table 1 are the same standards (adverse effects-based) developed for the Table 2 - 5 full depth generic and stratified site condition standards. These values are within the range of measured background sediment where data is available in the 1993 Sediment Guidelines and are considered to provide a level of human health and ecosystem protection consistent with background and protective of sensitive ecosystems.

Notes on Table 6

Table 6 is used to determine whether a property is a “shallow soil property” as per section 41 of the regulation.

Table 6 sets out contaminants by listing contaminants in the column of rows that has the heading row entitled “Contaminants”. It sets out prescribed standards for each prescribed contaminant by indicating in the appropriate locations the maximum concentration of the contaminant in the soil extract or the ground water, as the case may be, which is expressed in a number that is to be read as µg/L, unless otherwise indicated in the table.

If a single number appears in a cell in the table, it is the maximum concentration of the contaminant, that applies to both a property that is considered coarse textured soil and a property that is considered medium and fine textured soil. If two numbers appear in a cell in the table, the number in parentheses is the maximum concentration of the contaminant, for a property that is considered medium and fine textured soil, and the other number is the maximum concentration of the contaminant, for a property that is considered coarse textured soil.

A contaminant that is listed and for which the abbreviation “N/V” appears in the row, instead of a number representing a maximum concentration, is a contaminant for which a standard is not prescribed. The abbreviation “N/V” means “no value”.

Table 1: Full Depth Background Site Condition Standards

TABLE 1: Full Depth Background Site Condition Standards

TABLE 1: Contaminant	Soil (other than sediment) (µg/g)		Ground Water (µg/L)	Sediment (µg/g)
	Agricultural or Other Property Use	All Other Types of Property Uses	All Types of Property Uses	All Types of Property Uses
ACENAPHTHENE	0.05	0.07	1	NV
ACENAPHTHYLENE	0.08	0.08	1	NV
ACETONE	N/V	N/V	NV	NV
ALDRIN	0.05	0.05	0.005	0.002
ANTHRACENE	0.05	0.16	0.05	0.22
ANTIMONY	1.0	1.0	6	NV
ARSENIC	14	17	25	6
BARIUM	190	210	NV	NV
BENZENE	0.002	0.002	5	NV
BENZO(a)ANTHRACENE	0.10	0.74	0.1	0.32
BENZO(a)PYRENE	0.10	0.49	0.005	0.37
BENZO(b)FLUORANTHENE	0.30	0.47	0.05	NV
BENZO(g,h,i)PERYLENE	0.20	0.68	0.1	0.17
BENZO(k)FLUORANTHENE	0.05	0.48	0.05	0.24
BERYLLIUM	1.2	1.2	4	NV
BIPHENYL, 1,1-	N/V	N/V	1	NV
BIS(2-CHLOROETHYL)ETHER	N/V	N/V	4.4	NV
BIS(2-CHLOROISOPROPYL)ETHER	N/V	N/V	1	NV
BIS(2-ETHYLHEXYL)PHTHALATE	N/V	N/V	3	NV
BORON	NV	NV	200	NV
BROMODICHLOROMETHANE	N/V	N/V	5	NV
BROMOFORM	0.002	0.002	5	NV
BROMOMETHANE	0.003	0.003	0.9	NV
CADMIUM	1.0	1.0	0.5	0.6
CARBON TETRACHLORIDE	0.002	0.002	0.5	NV
CHLORDANE	0.05	0.05	0.02	0.007
CHLOROANILINE, p-	N/V	N/V	NV	NV

TABLE 1: Contaminant	Soil (other than sediment) (µg/g)		Ground Water (µg/L)	Sediment (µg/g)
	Agricultural or Other Property Use	All Other Types of Property Uses	All Types of Property Uses	All Types of Property Uses
CHLOROBENZENE	0.002	0.002	15	NV
CHLOROFORM	0.006	0.006	0.5	NV
CHLOROPHENOL, 2-	0.1	0.1	0.3	NV
CHROMIUM (TOTAL)	67	71	8.9	26
CHROMIUM (VI)	2.5	2.5	10	NV
CHRYSENE	0.18	0.69	0.05	0.34
COBALT	19	21	0.9	50
COPPER	56	85	2.5	16
CYANIDE (FREE)	0.12	0.12	5	0.1
DIBENZO(a,h)ANTHRACENE	0.15	0.16	0.1	0.06
DIBROMOCHLOROMETHANE	0.003	0.003	0.5	NV
DICHLOROBENZENE, 1,2- (o-DCB)	0.002	0.002	2.5	NV
DICHLOROBENZENE, 1,3- (m-DCB)	0.002	0.002	2.5	NV
DICHLOROBENZENE, 1,4- (p-DCB)	0.002	0.002	1	NV
DICHLOROBENZIDINE, 3,3'-	N/V	N/V	0.6	NV
DDD	N/V	N/V	0.025	0.008
DDE	N/V	N/V	0.01	0.005
DDT	0.12	1.4	0.05	0.007
DICHLOROETHANE, 1,1-	0.002	0.002	70	NV
DICHLOROETHANE, 1,2-	0.002	0.002	5	NV
DICHLOROETHYLENE, 1,1-	0.002	0.002	0.66	NV
DICHLOROETHYLENE, CIS-1,2-	N/V	N/V	70	NV
DICHLOROETHYLENE, TRANS-1,2-	0.003	0.003	100	NV
DICHLOROPHENOL, 2,4-	0.1	0.1	0.3	NV
DICHLOROPROPANE, 1,2-	0.002	0.002	0.7	NV
DICHLOROPROPENE, 1,3-	0.003	0.003	1.4	NV
DIELDRIN	0.05	0.05	0.01	0.002
DIETHYL PHTHALATE	N/V	N/V	0.2	NV
DIMETHYL PHTHALATE	N/V	N/V	0.2	NV

TABLE 1:	Soil (other than sediment)		Ground Water	Sediment
	(µg/g)		(µg/L)	(µg/g)
Contaminant	Agricultural or Other Property Use	All Other Types of Property Uses	All Types of Property Uses	All Types of Property Uses
DIMETHYLPHENOL, 2,4-	0.2	0.2	10	NV
DINITROPHENOL, 2,4-	0.2	0.2	42	NV
DINITROTOLUENE, 2,4-	N/V	N/V	0.5	NV
DIOXIN/FURAN	0.007 (ng TEQ/g)	0.007 (ng TEQ/g)	0.0000007(ng TEQ/L)	NV
ENDOSULFAN	N/V	N/V	0.06	NV
ENDRIN	0.05	0.05	0.025	0.003
ETHYLBENZENE	0.002	0.002	2.4	NV
ETHYLENE DIBROMIDE	0.004	0.004	1	NV
FLUORANTHENE	0.24	1.1	1	0.75
FLUDRENE	0.05	0.12	1	0.19
HEPTACHLOR	0.05	0.05	0.005	NV
HEPTACHLOR EPOXIDE	0.05	0.05	0.01	0.005
HEXACHLOROBENZENE	N/V	N/V	0.0065	0.02
HEXACHLOROBUTADIENE	N/V	N/V	0.009	NV
HEXACHLOROCYCLOHEXANE, GAMMA	N/V	N/V	0.005	NV
HEXACHLOROETHANE	N/V	N/V	1	NV
INDENO(1,2,3-cd)PYRENE	0.11	0.38	0.1	0.2
LEAD	55	120	1	31
MERCURY	0.16	0.23	0.02	0.2
METHOXYCHLOR	0.05	0.05	0.04	NV
METHYL ETHYL KETONE	N/V	N/V	350	NV
METHYL ISOBUTYL KETONE	N/V	N/V	NV	NV
METHYL MERCURY	N/V	N/V	NV	NV
METHYL TERT BUTYL ETHER	N/V	N/V	200	NV
METHYLENE CHLORIDE	0.003	0.003	50	NV
METHYLNAPHTHALENE, 1-	0.05	0.26	2.5*	NV
METHYLNAPHTHALENE, 2-	0.05	0.29		NV
MOLYBDENUM	2.5	2.5	40	NV
NAPHTHALENE	0.05	0.09	7	NV

TABLE 1:	Soil (other than sediment)		Ground Water	Sediment
	(µg/g)		(µg/L)	(µg/g)
Contaminant	Agricultural or Other Property Use	All Other Types of Property Uses	All Types of Property Uses	All Types of Property Uses
NICKEL	43	43	25	16
PENTACHLOROPHENOL	0.1	0.1	0.5	NV
PETROLEUM HYDROCARBONS F1 (C6 - C10) ^b	N/V	N/V	NV	NV
PETROLEUM HYDROCARBONS F2 (>C10 - C16) ^b	N/V	N/V	NV	NV
PETROLEUM HYDROCARBONS F3 (>C16 - C34) ^b	N/V	N/V	NV	NV
PETROLEUM HYDROCARBONS F4 (>C34) ^b	N/V	N/V	NV	NV
PHENANTHRENE	0.19	0.69	1	0.56
PHENOL	0.1	0.1	5	NV
POLYCHLORINATED BIPHENYLS	0.3	0.3	0.1	0.07
PYRENE	0.19	1.0	0.05	0.49
SELENIUM	1.4	1.9	5	NV
SILVER	0.35	0.42	0.25	0.5
STYRENE	0.002	0.002	4	NV
TETRACHLOROETHANE, 1,1,1,2-	N/V	N/V	5	NV
TETRACHLOROETHANE, 1,1,2,2-	0.004	0.004	1	NV
TETRACHLOROETHYLENE	0.002	0.002	5	NV
THALLIUM	2.5	2.5	0.5	NV
TOLUENE	0.002	0.002	0.8	NV
TRICHLOROBENZENE, 1,2,4-	N/V	N/V	0.5	NV
TRICHLOROETHANE, 1,1,1-	0.008	0.009	10	NV
TRICHLOROETHANE, 1,1,2-	0.002	0.002	5	NV
TRICHLOROETHYLENE	0.004	0.004	20	NV
TRICHLOROPHENOL, 2,4,5-	0.1	0.1	18	NV
TRICHLOROPHENOL, 2,4,6-	0.1	0.1	2	NV
VANADIUM	91	91	6	NV
VINYL CHLORIDE	0.003	0.003	0.5	NV
XYLENES	0.002	0.002	72	NV
ZINC	150	160	20	120
ELECTRICAL CONDUCTIVITY	0.47 (mS/cm)	0.57 (mS/cm)	NA	N/A

TABLE 1: Contaminant	Soil (other than sediment) (µg/g)		Ground Water (µg/L)	Sediment (µg/g)
	Agricultural or Other Property Use	All Other Types of Property Uses	All Types of Property Uses	All Types of Property Uses
CHLORIDE	58	330	NV	NV
NITROGEN (TOTAL)	0.7 (%)	0.7 (%)	NV	NV
NITRITE/NITRATE	40	61	NV	NV
NITRATE	NA	NA	NV	NV
NITRITE	NA	NA	NV	NV
SODIUM ADSORPTION RATIO (SAR)	1.0	2.4	N/A	N/A
SODIUM	NA	NA	NV	NV

N/V = No value derived N/A = Not applicable

^a Sum of 1- and 2- methyl naphthalene values

^b For a site to meet this standard, there must be no evidence of free product, including but not limited to, visible petroleum hydrocarbon film or sheen present on groundwater, surface water or in any groundwater or surface water samples. Groundwater must be free of objectionable petroleum hydrocarbon odour and taste

**Table 2: Full Depth Generic Site Condition Standards in a Potable
Ground Water Condition**

TABLE 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition.

TABLE 2: Contaminant	Soil Standards (other than sediment) (µg/g)			Potable Ground Water (µg/L)	Sediment (µg/g)
	Agricultural or Other Property Use	Residential/ Parkland/Institutional Property Use	Industrial/ Commercial/Community Property Use	All Types of Property Use	All Types of Property Use
ACENAPHTHENE	15	15	15	20	NV
ACENAPHTHYLENE	100	100	130	310	NV
ACETONE	3.5	3.5	3.5	3000	NV
ALDRIN	0.05	0.05	0.05	0.01	0.002
ANTHRACENE	28	28	28	12	0.22
ANTIMONY	13	13	(44) 40	6.0	NV
ARSENIC	(25) 20	(25) 20	(50) 40	25	6
BARIUM	(1000) 750	(1000) 750	(2000) 1500	1000	NV
BENZENE	0.24	0.24	0.24	5.0	NV
BENZO(a)ANTHRACENE	6.6	6.6	6.6	0.2	0.32
BENZO(a)PYRENE	1.2	1.2	1.9	0.01	0.37
BENZO(b)FLUORANTHENE	12	12	18	0.2	NV
BENZO(g,h,i)PERYLENE	40	40	40	0.2	0.17
BENZO(k)FLUORANTHENE	12	12	18	0.2	0.24
BERYLLIUM	1.2	1.2	1.2	4.0	NV
BIPHENYL, 1,1'-	0.89	0.89	0.89	350	NV
BIS(2-CHLOROETHYL)ETHER	0.66	0.66	0.66	4.4	NV
BIS(2-CHLOROISOPROPYL)ETHER	0.66	0.66	0.66	2.2	NV
BIS(2-ETHYLHEXYL)PHTHALATE	100	100	100	6.0	NV
BORON (AVAILABLE)	1.5*	1.5*	2.0*	5000	NV
BROMODICHLOROMETHANE	0.12	0.12	0.12	5.0	NV
BROMOFORM	0.11	0.11	0.11	5.0	NV
BROMOMETHANE	(0.38) 0.061	(0.38) 0.061	(0.38) 0.061	(10) 3.7	NV
CADMIUM	(4.0) 3.0	12	12	5.0	0.6
CARBON TETRACHLORIDE	(0.64) 0.10	(0.64) 0.10	(0.64) 0.10	5.0	NV

TABLE 2: Contaminant	Soil Standards (other than sediment) (µg/g)			Potable Ground Water (µg/L)	Sediment (µg/g)
	Agricultural or Other Property Use	Residential Parkland/Institutional Property Use	Industrial/ Commercial/Community Property Use	All Types of Property Use	All Types of Property Use
CHLORDANE	0.29	0.29	0.29	0.04	0.007
CHLOROANILINE, p-	1.3	1.3	1.3	28	NV
CHLOROBENZENE	2.4	2.4	2.4	30	NV
CHLOROFORM	0.13	0.13	0.13	5.0	NV
CHLOROPHENOL, 2-	0.1	0.1	0.1	0.3	NV
CHROMIUM (TOTAL)	(1000) 750	(1000) 750	(1000) 750	50	26
CHROMIUM (VI)	(10) 8.0	(10) 8.0	(10) 8.0	50	NV
CHRYSENE	12	12	17	0.5	0.34
COBALT	(50) 40	(50) 40	(100) 80	100	50
COPPER	(200) 150	(300) 225	(300) 225	23	16
CYANIDE (FREE)	100	100	100	52	0.1
DIBENZO(a,h)ANTHRACENE	1.2	1.2	1.9	0.2	0.06
DIBROMOCHLOROMETHANE	0.09	0.09	0.09	5.0	NV
DICHLOROBENZENE, 1,2- (o-DCB)	0.88	0.88	0.88	3.0	NV
DICHLOROBENZENE, 1,3- (m-DCB)	30	30	30	630	NV
DICHLOROBENZENE, 1,4- (p-DCB)	0.32	0.32	0.32	1.0	NV
DICHLOROBENZIDINE, 3,3'-	1.3	1.3	1.3	83	NV
DDO	2.2	2.2	3.5	6.0	0.008
ODE	1.6	1.6	2.4	20	0.005
DDT	1.6	1.6	2.0	0.05	0.007
DICHLOROETHANE, 1,1-	3.0	3.0	3.0	70	NV
DICHLOROETHANE, 1,2-	(0.05) 0.022	(0.05) 0.022	(0.05) 0.022	5.0	NV
DICHLOROETHYLENE, 1,1-	(0.015) 0.0024	(0.015) 0.0024	(0.015) 0.0024	(4.1) 0.66	NV
DICHLOROETHYLENE, CIS-1,2-	2.3	2.3	2.3	70	NV
DICHLOROETHYLENE, TRANS-1,2-	4.1	4.1	4.1	100	NV
DICHLOROPHENOL, 2,4-	0.3	0.3	0.3	0.3	NV
DICHLOROPROPANE, 1,2-	(0.12) 0.019	(0.12) 0.019	(0.12) 0.019	5.0	NV

TABLE 2: Contaminant	Soil Standards (other than sediment) (µg/g)			Potable Ground Water (µg/L)	Sediment (µg/g)
	Agricultural or Other Property Use	Residential Parkland/Institutional Property Use	Industrial/ Commercial/Community Property Use	All Types of Property Use	All Types of Property Use
DICHLOROPROPENE, 1,3-	(0.04) 0.0066	(0.04) 0.0066	(0.04) 0.0066	1.4	NV
DIELDRIN	0.05	0.05	0.05	0.02	0.002
DIETHYL PHTHALATE	0.71	0.71	0.71	30	NV
DIMETHYL PHTHALATE	0.7	0.7	0.7	30	NV
DIMETHYLPHENOL, 2,4-	0.94	0.94	0.94	140	NV
DINITROPHENOL, 2,4-	0.2	0.2	0.2	42	NV
DINITROTOLUENE, 2,4-	0.66	0.66	0.66	0.5	NV
DIOXIN/FURAN	0.01 (ng TEQ/g)	1.0 (ng TEQ/g)	1.0 (ng TEQ/g)	0.000015 (ng TEQ/L)	NV
ENDOSULFAN	0.18	0.18	0.18	0.35	NV
ENDRIN	0.05	0.05	0.05	0.05	0.003
ETHYLBENZENE	0.28	0.28	0.28	2.4	NV
ETHYLENE DIBROMIDE	(0.01) 0.0056	(0.01) 0.0056	(0.012) 0.0056	1.0	NV
FLUORANTHENE	40	40	40	130	0.75
FLUORENE	340	340	340	280	0.19
HEPTACHLOR	(0.12) 0.084	(0.12) 0.084	(0.15) 0.084	0.04	NV
HEPTACHLOR EPOXIDE	0.06	0.06	0.09	3.0	0.005
HEXACHLOROBENZENE	0.46	0.46	0.76	(1.0) 0.62	0.02
HEXACHLOROBUTADIENE	(2.2) 0.38	(2.2) 0.38	(2.2) 0.38	0.45	NV
HEXACHLOROCYCLOHEXANE, GAMMA	0.41	0.41	0.49	0.8	NV
HEXACHLOROETHANE	(6.3) 3.8	(6.3) 3.8	(8.5) 3.8	2.5	NV
INDENO(1,2,3-cd)PYRENE	12	12	19	0.2	0.2
LEAD	200	200	1000	10	31
MERCURY	10	10	10	0.12	0.2
METHOXYCHLOR	4.0	4.0	4.0	0.3	NV
METHYL ETHYL KETONE	0.27	0.27	0.27	350	NV
METHYL ISOBUTYL KETONE	0.48	0.48	0.48	350	NV
METHYL MERCURY	6.8**	6.8**	10**	0.12	NV

TABLE 2:	Soil Standards (other than sediment)			Potable Ground Water	Sediment
	(µg/g)			(µg/L)	(µg/g)
Contaminant	Agricultural or Other Property Use	Residential/ Parkland/Institutional Property Use	Industrial/ Commercial Community Property Use	All Types of Property Use	All Types of Property Use
METHYL TERT BUTYL ETHER	5.7	5.7	5.7	700	NV
METHYLENE CHLORIDE	1.1	1.1	1.1	50	NV
METHYLNAPHTHALENE, 2-(1-)	1.2	1.2	1.2	10	NV
MOLYBDENUM	5.0	40	40	7300	NV
NAPHTHALENE	4.6	4.6	4.6	21	NV
NICKEL	(200) 150	(200) 150	(200) 150	100	16
PENTACHLOROPHENOL	5.0	5.0	5.0	30	NV
PETROLEUM HYDROCARBONS F1 (C6 – C10) *	(180) 30	(180) 30	(180) 230	1000 ^b	NV
PETROLEUM HYDROCARBONS F2 (>C10 – C16) *	(250) 150	(250) 150	(250) 150		NV
PETROLEUM HYDROCARBONS F3 (>C16 – C34) *	(800) 400	(800) 400	(2500) 1700	1000 ^c	NV
PETROLEUM HYDROCARBONS F4 (>C34) *	(5600) 2800	(5600) 2800	(6600) 3300		NV
PHENANTHRENE	40	40	40	63	0.56
PHENOL	40	40	40	4200	NV
POLYCHLORINATED BIPHENYLS	0.5	5.0	25	0.2	0.07
PYRENE	250	250	250	40	0.49
SELENIUM	2.0	10	10	10	NV
SILVER	(25) 20	(25) 20	(50) 40	1.2	0.5
STYRENE	(1.7) 1.2	(1.7) 1.2	(1.7) 1.2	100	NV
TETRACHLOROETHANE, 1,1,1,2-	(0.12) 0.019	(0.12) 0.019	(0.12) 0.019	5.0	NV
TETRACHLOROETHANE, 1,1,2,2-	0.01	0.01	0.01	1.0	NV
TETRACHLOROETHYLENE	0.45	0.45	0.45	5.0	NV
THALLIUM	4.1	4.1	32	2.0	NV
TOLUENE	2.1	2.1	2.1	24	NV
TRICHLOROBENZENE, 1,2,4-	30	30	30	70	NV
TRICHLOROETHANE, 1,1,1-	(34) 26	(34) 26	(34) 26	200	NV
TRICHLOROETHANE, 1,1,2-	0.28	0.28	0.28	5.0	NV
TRICHLOROETHYLENE	(3.9) 1.1	(3.9) 1.1	(3.9) 1.1	50	NV

TABLE 2: Contaminant	Soil Standards (other than sediment) (µg/g)			Potable Ground Water (µg/L)	Sediment (µg/g)
	Agricultural or Other Property Use	Residential/ Parkland/Institutional Property Use	Industrial/ Commercial/Community Property Use	All Types of Property Use	All Types of Property Use
TRICHLOROPHENOL, 2,4,5-	3 2	3 2	3 2	200	NV
TRICHLOROPHENOL 2,4,6-	0 66	0 66	0 66	2 0	NV
VANADIUM	(250) 200	(250) 200	(250) 200	200	NV
VINYL CHLORIDE	(0 0075) 0 003	(0 0075) 0 003	(0 0075) 0 003	(1 3) 0 5	NV
XYLENES	25	25	25	300	NV
ZINC	(800) 600	(800) 600	(800) 600	1100	120
ELECTRICAL CONDUCTIVITY	0 70 (mS/cm)	0 70 (mS/cm)	1 4(mS/cm)	N/A	N/A
CHLORIDE	N/V	N/V	N/V	250000	NV
NITRATE	N/V	N/V	N/V	10000	NV
NITRITE	N/V	N/V	N/V	1000	NV
SODIUM ADSORPTION RATIO (SAR)	5 0	5 0	12	N/A	N/A
SODIUM	N/V	N/V	N/V	200000	NV

() Standard value in brackets applies to medium and fine textured soils

+ Boron soil standard based on Hot Water Extract

++ Analysis for methyl mercury only applies when the mercury (total) standard is exceeded

(*1-) 2-methyl naphthalene soil standard is applicable to 1-methyl naphthalene with the provision that if both are detected in the soil, the sum of the two concentrations cannot exceed the soil standard

* For a site to meet this standard, there must be no evidence of free product, including but not limited to, visible petroleum hydrocarbon film or sheen present on groundwater, surface water or in any groundwater or surface water samples. Groundwater must be free of objectionable petroleum hydrocarbon odour and taste

^b The sum of F1 and F2 must be less than 1000

^c The sum of F3 and F4 must be less than 1000

N/V = No value derived N/A = Not applicable

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

TABLE 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

TABLE 3:	Soil (other than sediment) (µg/g)		Non-Potable Ground Water (µg/L)	Sediment (µg/g)
Contaminant	Residential Parkland/Institutional Property Use	Industrial/ Commercial/Community Property Use	All Types of Property Use	All Types of Property Use
ACENAPHTHENE	1000	1300	1700	NV
ACENAPHTHYLENE	100	840	2000	NV
ACETONE	3.8	3.8	3300	NV
ALDRIN	0.05	0.05	(13) 0.2	0.002
ANTHRACENE	28	28	12	0.22
ANTIMONY	13	(44) 40	16000	NV
ARSENIC	(25) 20	(50) 40	480	6
BARIUM	(1000) 750	(2000) 1500	23000	NV
BENZENE	(25) 5.3	(25) 5.3	(12000) 1900	NV
BENZO(a)ANTHRACENE	40	40	5.0	0.32
BENZO(a)PYRENE	1.2	1.9	1.9	0.37
BENZO(b)FLUORANTHENE	12	19	7.0	NV
BENZO(g,h,i)PERYLENE	40	40	0.2	0.17
BENZO(k)FLUORANTHENE	12	19	0.4	0.24
BERYLLIUM	1.2	1.2	53	NV
BIPHENYL, 1,1'-	4.3	4.3	1700	NV
BIS(2-CHLOROETHYL)ETHER	0.66	0.66	(710) 110	NV
BIS(2-CHLOROISOPROPYL)ETHER	(1.9) 0.82	(2.6) 0.82	(2700) 430	NV
BIS(2-ETHYLHEXYL)PHTHALATE	130	330	30	NV
BORON (AVAILABLE)	1.5*	2.0*	50000	NV
BROMODICHLOROMETHANE	14	25	50000	NV
BROMOFORM	(14) 2.3	(14) 2.3	(5200) 840	NV
BROMOMETHANE	(0.38) 0.061	(0.38) 0.061	(16) 3.7	NV
CAESIUM	12	12	11	0.6
CARBON TETRACHLORIDE	(0.64) 0.10	(0.64) 0.10	(100) 17	NV

TABLE 3:	Soil (other than sediment)		Non-Potable	Sediment
	(µg/g)		Ground Water	(µg/g)
Contaminant	Residential/ Parkland/Institutional Property Use	Industrial/ Commercial/Community Property Use	All Types of Property Use	All Types of Property Use
CHLORDANE	0.29	0.29	0.04	0.007
CHLOROANILINE, p-	1.3	1.3	100	NV
CHLOROBENZENE	(30) 8.0	(30) 8.0	500	NV
CHLOROFORM	(4.9) 0.79	(4.9) 0.79	(2700) 430	NV
CHLOROPHENOL, 2-	10	10	44000	NV
CHROMIUM (TOTAL)	(1000) 750	(1000) 750	2000	26
CHROMIUM (VI)	(10) 8.0	(10) 8.0	110	NV
CHRYSENE	12	19	3.0	0.34
COBALT	(50) 40	(100) 80	100	50
COPPER	(300) 225	(300) 225	23	16
CYANIDE (FREE)	100	100	52	0.1
DIBENZO(a,h)ANTHRACENE	1.2	1.9	0.25	0.06
DIBROMOCHLOROMETHANE	10	18	50000	NV
DICHLOROBENZENE, 1,2- (o-DCB)	30	30	7600	NV
DICHLOROBENZENE, 1,3- (m-DCB)	30	30	7600	NV
DICHLOROBENZENE, 1,4- (p-DCB)	30	30	7600	NV
DICHLOROBENZIDINE, 3,3'-	1.3	1.3	1600	NV
DDD	2.2	3.5	6.0	0.008
DDE	1.6	2.4	20	0.005
DDT	1.6	2.0	0.05	0.007
DICHLOROETHANE, 1,1-	(100) 22	(140) 22	(50000) 9000	NV
DICHLOROETHANE, 1,2-	(0.14) 0.022	(0.14) 0.022	(110) 17	NV
DICHLOROETHYLENE, 1,1-	(0.015) 0.0024	(0.015) 0.0024	(4.1) 0.66	NV
DICHLOROETHYLENE, CIS-1,2-	2.3	2.3	70	NV
DICHLOROETHYLENE, TRANS-1,2-	4.1	4.1	100	NV
DICHLOROPHENOL, 2,4-	10	10	3700	NV
DICHLOROPROPANE, 1,2-	(0.12) 0.019	(0.12) 0.019	(58) 9.3	NV

TABLE 3: Contaminant	Soil (other than sediment) (µg/g)		Non-Potable Ground Water (µg/L)	Sediment (µg/g)
	Residential Parkland Institutional Property Use	Industrial Commercial Community Property Use	All Types of Property Use	All Types of Property Use
DICHLOROPROPENE, 1,3-	(0.041) 0.0066	(0.041) 0.0066	(24) 3.8	NV
DIELDRIN	0.05	0.05	0.02	0.002
DIETHYL PHTHALATE	0.71	0.71	30	NV
DIMETHYL PHTHALATE	0.7	0.7	30	NV
DIMETHYLPHENOL, 2,4-	140	140	21000	NV
DINITROPHENOL, 2,4-	4.1	4.1	1500	NV
DINITROTOLUENE, 2,4-	1.1	1.8	2300	NV
DIOXIN/FURAN	1.0(ng TEQ/g)	1.0(ng TEQ/g)	0.000015(ng TEQ/L)	NV
ENDOSULFAN	0.29	0.29	0.56	NV
ENDRIN	0.05	0.05	0.05	0.003
ETHYLBENZENE	(500) 290	(1000) 290	(50000) 28000	NV
ETHYLENE DIBROMIDE	(0.01) 0.0056	(0.02) 0.0056	(21) 3.3	NV
FLUORANTHENE	40	40	130	0.75
FLUORENE	350	350	290	0.19
HEPTACHLOR	(0.12) 0.084	(0.15) 0.084	0.04	NV
HEPTACHLOR EPOXIDE	0.06	0.09	(37) 6.0	0.005
HEXACHLOROBENZENE	0.46	0.76	(3.9) 0.62	0.02
HEXACHLOROBUTADIENE	(2.4) 0.38	(2.4) 0.38	(5.4) 0.87	NV
HEXACHLOROCYCLOHEXANE, GAMMA	0.41	0.49	0.8	NV
HEXACHLOROETHANE	(6.3) 3.8	(13) 3.8	(78) 12	NV
INDENO(1,2,3-cd)PYRENE	12	19	0.27	0.2
LEAD	200	1000	32	31
MERCURY	10	10	0.12	0.2
METHOXYCHLOR	4.0	4.0	0.3	NV
METHYL ETHYL KETONE	38	38	50000	NV
METHYL ISOBUTYL KETONE	(69) 58	(69) 58	50000	NV
METHYL MERCURY	6.8**	10**	0.12	NV

TABLE 3: Contaminant	Soil (other than sediment) (µg/g)		Non-Potable Ground Water (µg/L)	Sediment (µg/g)
	Residential Parkland/Institutional Property Use	Industrial Commercial/Community Property Use	All Types of Property Use	All Types of Property Use
METHYL TERT BUTYL ETHER	100	(410) 120	50000	NV
METHYLENE CHLORIDE	120	(200) 140	50000	NV
METHYLNAPHTHALENE, 2-(*1-)	(1000) 280	(1600) 280	13000	NV
MOLYBDENUM	40	40	7300	NV
NAPHTHALENE	40	40	(6200) 5900	NV
NICKEL	(200) 150	(200) 150	1600	16
PENTACHLOROPHENOL	5.0	5.0	130	NV
PETROLEUM HYDROCARBONS F1 (C6 – C10) *	(260) 30	(660) 230	N/V	NV
PETROLEUM HYDROCARBONS F2 (>C10 – C16) *	(900) 150	(1500) 150	N/V	NV
PETROLEUM HYDROCARBONS F3 (>C16 – C34) *	(800) 400	(2500) 1700	N/V	NV
PETROLEUM HYDROCARBONS F4 (>C34) *	(5600) 2800	(6600) 3300	N/V	NV
PHENANTHRENE	40	40	63	0.56
PHENOL	40	40	26000	NV
POLYCHLORINATED BIPHENYLS	5.0	25	0.2	0.07
PYRENE	250	250	40	0.49
SELENIUM	10	10	50	NV
SILVER	(25) 20	(50) 40	1.2	0.5
STYRENE	(7.7) 1.2	(7.7) 1.2	(5900) 940	NV
TETRACHLOROETHANE, 1,1,1,2-	(0.12) 0.019	(0.12) 0.019	(38) 6.0	NV
TETRACHLOROETHANE, 1,1,2,2-	(0.23) 0.037	(0.23) 0.037	(140) 22	NV
TETRACHLOROETHYLENE	0.45	0.45	5.0	NV
THALLIUM	4.1	32	400	NV
TOLUENE	(150) 34	(150) 34	(37000) 5900	NV
TRICHLOROBENZENE, 1,2,4-	30	30	500	NV
TRICHLOROETHANE, 1,1,1-	(34) 26	(34) 26	200	NV
TRICHLOROETHANE, 1,1,2-	2.3	3.1	(50000) 16000	NV
TRICHLOROETHYLENE	(3.9) 1.1	(3.9) 1.1	50	NV

TABLE 3:	Soil (other than sediment) (µg/g)		Non-Potable Ground Water (µg/L)	Sediment (µg/g)
	Residential/ Parkland/Institutional Property Use	Industrial/ Commercial/Community Property Use	All Types of Property Use	All Types of Property Use
TRICHLOROPHENOL, 2,4,5-	10	10	630	NV
TRICHLOROPHENOL 2,4,6-	10	10	9700	NV
VANADIUM	(250) 200	(250) 200	200	NV
VINYL CHLORIDE	{0.0075} 0.003	{0.0075} 0.003	{1.3} 0.5	NV
XYLENES	(210) 34	(210) 34	(35000) 5600	NV
ZINC	(800) 600	(800) 600	1100	120
ELECTRICAL CONDUCTIVITY	0.70 (mS/cm)	1.4(mS/cm)	N/A	N/A
CHLORIDE	N/V	N/V	N/V	NV
NITRATE	N/V	N/V	N/V	NV
NITRITE	N/V	N/V	2000	NV
SODIUM ADSORPTION RATIO (SAR)	5.0	12	N/A	N/A
SODIUM	N/V	N/V	N/V	NV

() Standard value in brackets applies to medium and fine textured soils.

+ Boron soil standard based on Hot Water Extract

++ Analysis for methyl mercury is only required when the total mercury standard is exceeded

(*1-) 2-methyl naphthalene soil standard is applicable to 1-methyl naphthalene with the provision that if both are detected in the soil, the sum of the two concentrations

cannot exceed the soil standard

* For a site to meet this standard, there must be no evidence of free product, including but not limited to, visible petroleum hydrocarbon film or sheen present on groundwater, surface water or in any groundwater or surface water samples

N/V = No value derived N/A = Not applicable

Table 4: Stratified Site Condition Standards in a Potable Ground Water Condition

TABLE 4: Stratified Site Condition Standards in a Potable Ground Water Condition

TABLE 4:	Soil (other than sediment) (µg/g)				Potable Ground Water (µg/L)	Sediment (µg/g)
Contaminant	Residential/ Parkland/Institutional Property Use		Industrial/ Commercial/Community Property Use		All Types of Property Use	All Types of Property Use
	Surface Soil	Subsurface Soil	Surface Soil	Subsurface Soil		
ACENAPHTHENE	15	15	15	15	20	NV
ACENAPHTHYLENE	100	130	130	130	310	NV
ACETONE	3.5	3.5	3.5	3.5	3000	NV
ALDRIN	0.05	0.05	0.05	0.08	0.01	0.002
ANTHRACENE	28	28	28	28	12	0.22
ANTIMONY	13	44	(44) 40	44	6.0	NV
ARSENIC	(25) 20	(50) 40	(50) 40	N/V	25	6
BARIUM	(1000) 750	2500	(2000) 1500	4100	1000	NV
BENZENE	0.24	0.24	0.24	0.24	5.0	NV
BENZO(a)ANTHRACENE	6.6	6.6	6.6	6.6	0.2	0.32
BENZO(a)PYRENE	1.2	1.9	1.9	7.2	0.01	0.37
BENZO(b)FLUORANTHENE	12	18	18	18	0.2	NV
BENZO(g,h,i)PERYLENE	40	53	40	53	0.2	0.17
BENZO(k)FLUORANTHENE	12	18	18	18	0.2	0.24
BERYLLIUM	1.2	1.2	1.2	3.1	4.0	NV
BIPHENYL, 1,1-	0.89	0.89	0.89	0.89	350	NV
BIS(2-CHLOROETHYL)ETHER	0.66	0.66	0.66	0.66	4.4	NV
BIS(2-CHLOROISOPROPYL)ETHER	0.66	0.66	0.66	0.66	2.2	NV
BIS(2-ETHYLHEXYL)PHTHALATE	100	100	100	100	6.0	NV
BORON (AVAILABLE)	1.5 ⁺	2.0 ⁺	2.0 ⁺	N/V	5000	NV
BROMODICHLOROMETHANE	0.12	0.12	0.12	0.12	5.0	NV
BROMOFORM	0.11	0.11	0.11	0.11	5.0	NV
BROMOMETHANE	(0.38) 0.061	(12) 4.5	(0.38) 0.061	(12) 4.5	(10) 3.7	NV
CADMIUM	12	41	12	41	5.0	0.6
CARBON TETRACHLORIDE	(0.64) 0.10	1.0	(0.64) 0.10	1.0	5.0	NV

TABLE 4: Contaminant	Soil (other than sediment) (µg/g)				Potable Ground Water (µg/L)	Sediment (µg/g)
	Residential/ Parkland/Institutional Property Use		Industrial/ Commercial/Community Property Use		All Types of Property Use	All Types of Property Use
	Surface Soil	Subsurface Soil	Surface Soil	Subsurface Soil		
CHLORDANE	0.29	0.29	0.29	0.29	0.04	0.007
CHLOROANILINE, p-	1.3	1.3	1.3	1.3	28	NV
CHLOROBENZENE	2.4	2.4	2.4	2.4	30	NV
CHLOROFORM	0.13	0.13	0.13	0.13	5.0	NV
CHLOROPHENOL, 2-	0.1	0.1	0.1	0.1	0.3	NV
CHROMIUM (TOTAL)	(1000) 750	2500	(1000) 750	5000	50	26
CHROMIUM (VI)	(10) 8.0	600	(10) 8.0	1100	50	NV
CHRYSENE	12	17	17	17	0.5	0.34
COBALT	(50) 40	2500	(100) 80	3400	100	50
COPPER	(300) 225	2500	(300) 225	2500	23	16
CYANIDE (FREE)	100	100	100	390	52	0.1
DIBENZO(a,h)ANTHRACENE	1.2	1.9	1.9	7.2	0.2	0.06
DIBROMOCHLOROMETHANE	0.09	0.09	0.09	0.09	5.0	NV
DICHLOROBENZENE, 1,2- (o-DCB)	0.88	0.88	0.88	0.88	3.0	NV
DICHLOROBENZENE, 1,3- (m-DCB)	30	190	30	190	630	NV
DICHLOROBENZENE, 1,4- (p-DCB)	0.32	0.32	0.32	0.32	1.0	NV
DICHLOROBENZIDINE, 3,3'-	1.3	1.3	1.3	2.7	83	NV
DDD	2.2	3.5	3.5	13	6.0	0.008
ODE	1.6	2.4	2.4	8.9	20	0.005
DDT	1.6	2.0	2.0	2.0	0.05	0.007
DICHLOROETHANE, 1,1-	3.0	3.0	3.0	3.0	70	NV
DICHLOROETHANE, 1,2-	(0.05) 0.022	0.05	(0.05) 0.022	0.05	5.0	NV
DICHLOROETHYLENE, 1,1-	(0.015) 0.0024	(0.42) 0.07	(0.015) 0.0024	(0.42) 0.07	(4.1) 0.66	NV
DICHLOROETHYLENE, CIS-1,2-	2.3	2.3	2.3	2.3	70	NV
DICHLOROETHYLENE, TRANS-1,2-	4.1	4.1	4.1	4.1	100	NV
DICHLOROPHENOL, 2,4-	0.3	0.3	0.3	0.3	0.3	NV

TABLE 4: Contaminant	Soil (other than sediment) (µg/g)				Potable Ground Water (µg/L)	Sediment (µg/g)
	Residential/ Parkland/Institutional Property Use		Industrial/ Commercial/Community Property Use		All Types of Property Use	All Types of Property Use
	Surface Soil	Subsurface Soil	Surface Soil	Subsurface Soil		
DICHLOROPROPANE, 1,2-	(0.12) 0.019	0.13	(0.12) 0.019	0.13	5.0	NV
DICHLOROPROPENE, 1,3-	(0.04) 0.0066	0.04	(0.04) 0.0066	0.04	1.4	NV
DIELDRIN	0.05	0.05	0.05	0.05	0.02	0.002
DIETHYL PHTHALATE	0.71	0.71	0.71	0.71	30	NV
DIMETHYL PHTHALATE	0.7	0.7	0.7	0.7	30	NV
DIMETHYLPHENOL, 2,4-	0.94	0.94	0.94	0.94	140	NV
DINITROPHENOL, 2,4-	0.2	0.2	0.2	0.2	42	NV
DINITROTOLUENE, 2,4-	0.66	0.66	0.66	0.66	0.5	NV
DIDXIN/FURAN	1.0 (ng TEQ/g)	1.0 (ng TEQ/g)	1.0 (ng TEQ/g)	N/V	0.000015 (ng TEQ/L)	NV
ENDOSULFAN	0.18	0.18	0.18	0.18	0.35	NV
ENDRIN	0.05	0.05	0.05	0.05	0.05	0.003
ETHYLBENZENE	0.28	0.28	0.28	0.28	2.4	NV
ETHYLENE DIBROMIDE	(0.01) 0.0056	0.012	(0.012) 0.0056	0.012	1.0	NV
FLUORANTHENE	40	840	40	840	130	0.75
FLUORENE	340	340	340	340	280	0.19
HEPTACHLOR	(0.12) 0.084	0.15	(0.15) 0.084	0.15	0.04	NV
HEPTACHLOR EPOXIDE	0.06	0.09	0.09	0.33	3.0	0.005
HEXACHLOROBENZENE	0.46	0.76	0.76	2.8	(1.0) 0.62	0.02
HEXACHLOROBUTADIENE	(2.2) 0.38	2.2	(2.2) 0.38	2.2	0.45	NV
HEXACHLOROCYCLOHEXANE, GAMMA	0.41	0.49	0.49	0.49	0.8	NV
HEXACHLOROETHANE	(6.3) 3.8	8.5	(8.5) 3.8	8.5	2.5	NV
INDENO(1,2,3-cd)PYRENE	12	19	19	53	0.2	0.2
LEAD	200	1000	1000	N/V	10	31
MERCURY	10	57	10	57	0.12	0.2
METHOXYCHLOR	4.0	4.0	4.0	4.0	0.3	NV

TABLE 4:	Soil (other than sediment) (µg/g)				Potable Ground Water (µg/L)	Sediment (µg/g)
Contaminant	Residential/ Parkland/Institutional Property Use		Industrial/ Commercial/Community Property Use		All Types of Property Use	All Types of Property Use
	Surface Soil	Subsurface Soil	Surface Soil	Subsurface Soil		
METHYL ETHYL KETONE	0.27	0.27	0.27	0.27	350	NV
METHYL ISOBUTYL KETONE	0.48	0.48	0.48	0.48	350	NV
METHYL MERCURY	6.8 ⁺⁺	18 ⁺⁺	10 ⁺⁺	18 ⁺⁺	0.12	NV
METHYL TERT BUTYL ETHER	5.7	5.7	5.7	5.7	700	NV
METHYLENE CHLORIDE	1.1	1.1	1.1	1.1	50	NV
METHYLNAPHTHALENE, 2(1-)	1.2	1.2	1.2	1.2	10	NV
MOLYBDENUM	40	550	40	550	7300	NV
NAPHTHALENE	4.6	4.6	4.6	4.6	21	NV
NICKEL	(200) 150	710	(200) 150	710	100	16
PENTACHLOROPHENOL	5.0	12	5.0	43	30	NV
PETROLEUM HYDROCARBONS F1 (C6 – C10) *	(180) 30	(180) 40	(180) 230	(180) 230	1000 ^b	NV
PETROLEUM HYDROCARBONS F2 (>C10 – C16) *	(250) 150	(250) 150	(250) 150	(250) 150		NV
PETROLEUM HYDROCARBONS F3 (>C16 – C34) *	(800) 400	(3500) 2500	(2500) 1700	(5000) 3500	1000 ^c	NV
PETROLEUM HYDROCARBONS F4 (>C34) *	(5600) 2800	10000	(6600) 3300	10000		NV
PHENANTHRENE	40	150	40	150	63	0.56
PHENOL	40	64	40	64	4200	NV
POLYCHLORINATED BIPHENYLS	5.0	25	25	NV	0.2	0.07
PYRENE	250	250	250	250	40	0.49
SELENIUM	10	2500	10	2500	10	NV
SILVER	(25) 20	240	(50) 40	240	1.2	0.5
STYRENE	(1.7) 1.2	1.7	(1.7) 1.2	1.7	100	NV
TETRACHLOROETHANE, 1,1,1,2-	(0.12) 0.019	0.39	(0.12) 0.019	0.39	5.0	NV
TETRACHLOROETHANE, 1,1,2,2-	0.01	0.01	0.01	0.01	1.0	NV
TETRACHLOROETHYLENE	0.45	0.45	0.45	0.45	5.0	NV
THALLIUM	4.1	32	32	150	2.0	NV
TOLUENE	2.1	2.1	2.1	2.1	24	NV

TABLE 4:	Soil (other than sediment) (µg/g)				Potable Ground Water (µg/L)	Sediment (µg/g)
Contaminant	Residential/ Parkland Institutional Property Use		Industrial/ Commercial/Community Property Use		All Types of Property Use	All Types of Property Use
	Surface Soil	Subsurface Soil	Surface Soil	Subsurface Soil		
TRICHLORO BENZENE, 1,2,4-	30	110	30	110	70	NV
TRICHLOROETHANE, 1,1,1-	(34) 26	34	(34) 26	34	200	NV
TRICHLOROETHANE, 1,1,2-	0.28	0.28	0.28	0.28	5.0	NV
TRICHLOROETHYLENE	(3.9) 1.1	3.9	(3.9) 1.1	3.9	50	NV
TRICHLOROPHENOL, 2,4,5-	3.2	3.2	3.2	3.2	200	NV
TRICHLOROPHENOL 2,4,6-	0.66	0.66	0.66	0.66	2.0	NV
VANADIUM	(250) 200	910	(250) 200	910	200	NV
VINYL CHLORIDE	(0.0075) 0.003	(0.25) 0.094	(0.0075) 0.003	(0.25) 0.094	(1.3) 0.5	NV
XYLENES	25	25	25	25	300	NV
ZINC	(800) 600	2500	(800) 600	5000	1100	120
ELECTRICAL CONDUCTIVITY	0.70(mS/cm)	N/A	1.4(mS/cm)	N/A	N/A	N/A
CHLORIDE	NV	NV	NV	NV	250000	NV
NITRATE	NV	NV	NV	NV	10000	NV
NITRITE	NV	NV	NV	NV	1000	NV
SODIUM ADSORPTION RATIO (SAR)	5.0	N/A	12	N/A	N/A	N/A
SODIUM	NV	NV	NV	NV	200000	NV

() Standard value in brackets applies to medium and fine textured soils

+ Boron soil standard based on Hot Water Extract

↔ Analysis for methyl mercury is only required when the total mercury standard is exceeded

(*1-) 2-methyl naphthalene soil standard is applicable to 1-methyl naphthalene with the provision that if both are detected in the soil, the sum of the two concentrations cannot exceed the soil standard

* For a site to meet this standard, there must be no evidence of free product including but not limited to, visible petroleum hydrocarbon film or sheen present on groundwater, surface water or in any groundwater or surface water samples. Groundwater must be free of objectionable petroleum hydrocarbon odour and taste.

^b The sum of F1 and F2 must be less than 1000

^c The sum of F3 and F4 must be less than 1000

N/A = Not applicable, NV = No value derived

**Table 5: Stratified Site Condition Standards in a Non-Potable
Ground Water Condition**

TABLE 5: Stratified Site Condition Standards in a Non-Potable Ground Water Condition

TABLE 5:	Soil (other than sediment) (µg/g)				Non-Potable Ground Water (µg/L)	Sediment (µg/g)
Contaminant	Residential/ Parkland/Institutional Property Use		Industrial/ Commercial/Community Property Use		All Types of Property Use	All Types of Property Use
	Surface Soil	Subsurface Soil	Surface Soil	Subsurface Soil		
ACENAPHTHENE	1000	1300	1300	1300	1700	NV
ACENAPHTHYLENE	100	840	840	840	2000	NV
ACETONE	3.8	3.8	3.8	3.8	3300	NV
ALDRIN	0.05	0.05	0.05	0.15	(1.3) 0.2	0.002
ANTHRACENE	28	28	28	28	12	0.22
ANTIMONY	13	44	(44) 40	44	16000	NV
ARSENIC	(25) 20	(50) 40	(50) 40	N/V	480	6
BARIUM	(1000) 750	2500	(2000) 1500	4100	23000	NV
BENZENE	(25) 5.3	63	(25) 5.3	(230) 89	(12000) 1900	NV
BENZO(a)ANTHRACENE	40	170	40	170	5.0	0.32
BENZO(a)PYRENE	1.2	1.9	1.9	7.2	1.9	0.37
BENZO(b)FLUORANTHENE	12	19	19	72	7.0	NV
BENZO(g,h,i)PERYLENE	40	53	40	53	0.2	0.17
BENZO(k)FLUORANTHENE	12	19	19	37	0.4	0.24
BERYLLIUM	1.2	1.2	1.2	3.1	53	NV
BIPHENYL, 1,1'-	4.3	4.3	4.3	4.3	1700	NV
BIS(2-CHLOROETHYL)ETHER	0.66	0.66	0.66	0.66	(710) 110	NV
BIS(2-CHLOROISOPROPYL)ETHER	(1.9) 0.82	2.6	(2.6) 0.82	(9.3) 4.7	(2700) 430	NV
BIS(2-ETHYLHEXYL)PHTHALATE	130	330	330	500	30	NV
BORON (AVAILABLE)	1.5 ⁺	2.0 ⁺	2.0 ⁺	N/V	50000	NV
BROMODICHLOROMETHANE	14	25	25	90	50000	NV
BROMOFORM	(14) 2.3	(120) 19	(14) 2.3	(120) 19	(5200) 840	NV
BROMOMETHANE	(0.38) 0.061	(20) 4.5	(0.38) 0.061	(20) 4.5	(16) 3.7	NV
CADMIUM	12	41	12	41	11	0.6

TABLE 5:	Soil (other than sediment) (µg/g)				Non-Potable Ground Water (µg/L.)	Sediment (µg/g)
Contaminant	Residential/ Parkland/Institutional Property Use		Industrial/ Commercial/Community Property Use		All Types of Property Use	All Types of Property Use
	Surface Soil	Subsurface Soil	Surface Soil	Subsurface Soil		
CARBON TETRACHLORIDE	(0.64) 0.10	(12) 3.3	(0.64) 0.10	(20) 3.3	(100) 17	NV
CHLORDANE	0.29	0.29	0.29	0.29	0.04	0.007
CHLOROANILINE, p-	1.3	1.3	1.3	1.3	100	NV
CHLOROBENZENE	(30) 8.0	40	(30) 8.0	40	500	NV
CHLOROFORM	(4.9) 0.79	(71) 11	(4.9) 0.79	(71) 11	(2700) 430	NV
CHLOROPHENOL, 2-	10	240	10	800	44000	NV
CHROMIUM (TOTAL)	(1000) 750	2500	(1000) 750	5000	2000	26
CHROMIUM (VI)	(10) 8.0	600	(10) 8.0	1100	110	NV
CHRYSENE	12	19	19	72	3.0	0.34
COBALT	(50) 40	2500	(100) 80	3400	100	50
COPPER	(300) 225	2500	(300) 225	2500	23	16
CYANIDE (FREE)	100	100	100	390	52	0.1
DIBENZO(a,h)ANTHRACENE	1.2	1.9	1.9	7.2	0.25	0.06
DIBROMOCHLOROMETHANE	10	18	18	67	50000	NV
DICHLOROBENZENE, 1,2- (o-DCB)	30	500	30	500	7600	NV
DICHLOROBENZENE, 1,3- (m-DCB)	30	500	30	500	7600	NV
DICHLOROBENZENE, 1,4- (p-DCB)	30	63	30	230	7600	NV
DICHLOROBENZIDINE, 3,3'-	1.3	1.3	1.3	2.7	1600	NV
DDD	2.2	3.5	3.5	13	6.0	0.008
DDE	1.6	2.4	2.4	8.9	20	0.005
DDT	1.6	2.0	2.0	2.0	0.05	0.007
DICHLOROETHANE, 1,1-	(100) 22	(500) 390	(140) 22	(500) 390	(50000) 9000	NV
DICHLOROETHANE, 1,2-	(0.14) 0.022	(1.0) 0.16	(0.14) 0.022	(1.0) 0.16	(110) 17	NV
DICHLOROETHYLENE, 1,1-	(0.015) 0.0024	(0.42) 0.07	(0.015) 0.0024	(0.42) 0.07	(4.1) 0.66	NV
DICHLOROETHYLENE, CIS-1,2-	2.3	2.3	2.3	2.3	70	NV
DICHLOROETHYLENE, TRANS-1,2-	4.1	4.1	4.1	4.1	100	NV

TABLE 5:	Soil (other than sediment) (µg/g)				Non-Potable Ground Water (µg/L)	Sediment (µg/g)
Contaminant	Residential Parkland/Institutional Property Use		Industrial/ Commercial/Community Property Use		All Types of Property Use	All Types of Property Use
	Surface Soil	Subsurface Soil	Surface Soil	Subsurface Soil		
DICHLOROPHENOL, 2,4-	10	94	10	94	3700	NV
DICHLOROPROPANE, 1,2-	(0.12) 0.019	(1.5) 0.23	(0.12) 0.019	(1.5) 0.23	(58) 9.3	NV
DICHLOROPROPENE, 1,3-	(0.041) 0.0066	(0.62) 0.10	(0.041) 0.0066	(0.62) 0.10	(24) 3.8	NV
DIELDRIN	0.05	0.05	0.05	0.05	0.02	0.002
DIETHYL PHTHALATE	0.71	0.71	0.71	0.71	30	NV
DIMETHYL PHTHALATE	0.7	0.7	0.7	0.7	30	NV
DIMETHYLPHENOL, 2,4	140	140	140	140	21000	NV
DINITROPHENOL, 2,4-	4.1	4.1	4.1	4.1	1500	NV
DINITROTOLLENE, 2,4-	1.1	1.8	1.8	6.6	2300	NV
DIOXIN/FURAN (ng TEQ/g soil)	1.0	1.0	1.0	NV	0.000015	NV
ENDOSULFAN	0.29	0.29	0.29	0.29	0.56	NV
ENDRIN	0.05	0.05	0.05	0.05	0.05	0.003
ETHYLBENZENE	(500) 290	1000	(1000) 290	2500	(50000) 28000	NV
ETHYLENE DIBROMIDE	(0.01) 0.0056	0.02	(0.02) 0.0056	(0.066) 0.038	(21) 3.3	NV
FLUORANTHENE	40	840	40	840	130	0.75
FLUORENE	350	350	350	350	290	0.19
HEPTACHLOR	(0.12) 0.084	0.15	(0.15) 0.084	0.15	0.04	NV
HEPTACHLOR EPOXIDE	0.06	0.09	0.09	0.33	(37) 6.0	0.005
HEXACHLOROBENZENE	0.46	0.76	0.76	2.8	(3.9) 0.62	0.02
HEXACHLOROBUTADIENE	(2.4) 0.38	(11) 4.3	(2.4) 0.38	(27) 4.3	(5.4) 0.87	NV
HEXACHLOROCYCLOHEXANE, GAMMA	0.41	0.49	0.49	0.49	0.8	NV
HEXACHLOROETHANE	(6.3) 3.8	13	(13) 3.8	(47) 42	(78) 12	NV
INDENO(1,2,3-cd)PYRENE	12	19	19	70	0.27	0.2
LEAD	200	1000	1000	NV	32	31
MERCURY	10	57	10	57	0.12	0.2
METHOXYCHLOR	4.0	4.0	4.0	4.0	0.3	NV

TABLE 5:	Soil (other than sediment) (µg/g)				Non-Potable Ground Water (µg/L)	Sediment (µg/g)
Contaminant	Residential/ Parkland/Institutional Property Use		Industrial/ Commercial/Community Property Use		All Types of Property Use	All Types of Property Use
	Surface Soil	Subsurface Soil	Surface Soil	Subsurface Soil		
METHYL ETHYL KETONE	38	38	38	38	50000	NV
METHYL ISOBUTYL KETONE	(69) 58	69	(69) 58	69	50000	NV
METHYL MERCURY	6.8 ⁺⁺	18 ⁺⁺	10 ⁺⁺	18 ⁺⁺	0.12	NV
METHYL TERT BUTYL ETHER	100	410	(410) 120	410	50000	NV
METHYLENE CHLORIDE	120	200	(200) 140	740	50000	NV
METHYLNAPHTHALENE, 2-(1-)	(1000) 280	1600	(1600) 280	1600	13000	NV
MOLYBDENUM	40	550	40	550	7300	NV
NAPHTHALENE	40	(1400) 1300	40	(1400) 1300	(6200) 5900	NV
NICKEL	(200) 150	710	(200) 150	710	1600	16
PENTACHLOROPHENOL	5.0	12	5.0	43	130	NV
PETROLEUM HYDROCARBONS F1 (C6 – C10) *	(260) 30	(750) 40	(660) 230	(1000) 230	N/V	NV
PETROLEUM HYDROCARBONS F2 (>C10 – C16) *	(900) 150	(2200) 150	(1500) 150	(3000) 150	N/V	NV
PETROLEUM HYDROCARBONS F3 (>C16 – C34) *	(800) 400	(3500) 2500	(2500) 1700	(5000) 3500	N/V	NV
PETROLEUM HYDROCARBONS F4 (>C34) *	(5600) 2800	10000	(6600) 3300	10000	N/V	NV
PHENANTHRENE	40	150	40	150	63	0.56
PHENOL	40	390	40	390	26000	NV
POLYCHLORINATED BIPHENYLS	5.0	25	25	N/V	0.2	0.07
PYRENE	250	250	250	250	40	0.49
SELENIUM	10	2500	10	2500	50	NV
SILVER	(25) 20	240	(50) 40	240	1.2	0.5
STYRENE	(7.7) 1.2	(28) 16	(7.7) 1.2	(99) 16	(5900) 940	NV
TETRACHLOROETHANE, 1,1,1,2-	(0.12) 0.019	(2.9) 0.46	(0.12) 0.019	(2.9) 0.46	(38) 6.0	NV
TETRACHLOROETHANE, 1,1,2,2-	(0.23) 0.037	(0.64) 0.22	(0.23) 0.037	(1.4) 0.22	(140) 22	NV
TETRACHLOROETHYLENE	0.45	0.45	0.45	0.45	5.0	NV
THALLIUM	4.1	32	32	150	400	NV
TOLUENE	(150) 34	(1000) 510	(150) 34	(2500) 510	(37000) 5900	NV

TABLE 5: Contaminant	Soil (other than sediment) (µg/g)				Non-Potable Ground Water (µg/L)	Sediment (µg/g)
	Residential/ Parkland/Institutional Property Use		Industrial/ Commercial/Community Property Use		All Types of Property Use	All Types of Property Use
	Surface Soil	Subsurface Soil	Surface Soil	Subsurface Soil		
TRICHLOROBENZENE, 1,2,4-	30	770	30	770	500	NV
TRICHLOROETHANE, 1,1,1-	(34) 26	34	(34) 26	34	200	NV
TRICHLOROETHANE, 1,1,2-	2 3	3 1	3 1	12	(50000) 16000	NV
TRICHLOROETHYLENE	(3 9) 1 1	3 9	(3 9) 1 1	3 9	50	NV
TRICHLOROPHENOL, 2,4,5-	10	10	10	10	630	NV
TRICHLOROPHENOL 2,4,6-	10	59	10	220	9700	NV
VANADIUM	(250) 200	910	(250) 200	910	200	NV
VINYL CHLORIDE	(0 0075) 0 003	(0 25) 0 094	(0 0075) 0 003	(0 25) 0 094	(1 3) 0 5	NV
XYLENES	(210) 34	(1000) 460	(210) 34	(2500) 460	(35000) 5600	NV
ZINC	(800) 600	2500	(800) 600	5000	1100	120
ELECTRICAL CONDUCTIVITY	0 70 (mS/cm)	N/A	1 4 (mS/cm)	N/A	N/A	N/A
CHLORIDE	N/V	N/V	N/V	N/V	N/V	NV
NITRATE	N/V	N/V	N/V	N/V	N/V	NV
NITRITE	N/V	N/V	N/V	N/V	2000	NV
SODIUM ADSORPTION RATIO (SAR)	5 0	N/A	12	N/A	N/A	N/A
SODIUM	N/V	N/V	N/V	N/V	N/V	NV

() Standard value in brackets applies to medium and fine textured soils

+ Boron soil standard based on Hot Water Extract

++ Analysis for methyl mercury is only required when the total mercury standard is exceeded

(*1-) 2-methyl naphthalene soil standard is applicable to 1-methyl naphthalene with the provision that if both are detected in the soil, the sum of the two concentrations cannot exceed the soil standard

* For a site to meet this standard, there must be no evidence of free product, including but not limited to, visible petroleum hydrocarbon film or sheen present on groundwater, surface water or in any groundwater or surface water samples

N/A = Not applicable, N/V = No value derived

**Table 6: Soil Extract and Ground Water Standards to Determine
Whether a Property is a “Shallow Soil Property”**

TABLE 6: Soil Extract and Ground Water Standards to Determine Whether a Property is a “Shallow Soil Property”

TABLE 6: Extract and Ground Water Standards for Shallow Soils		
Contaminant	Potable Ground Water µg/L	Non-potable Ground Water µg/L
ACENAPHTHENE	20	520
ACENAPHTHYLENE	310	2000
ACETONE	330	330
ALDRIN	0.01	(1.3) 0.2
ANTHRACENE	1.2	1.2
ANTIMONY	6	1600
ARSENIC	25	48
BARIUM	1000	2300
BENZENE	5	(5300) 1860
BENZO(a)ANTHRACENE	0.2	1.8
BENZO(a)PYRENE	0.01	0.21
BENZO(b)FLUORANTHENE	0.2	7
BENZO(g,h,i)PERYLENE	0.13	0.13
BENZO(k)FLUORANTHENE	0.2	0.4
BERYLLIUM	4	5.3
BIPHENYL, 1,1'-	170	170
BIS(2-CHLOROETHYL)ETHER	4.4	110
BIS(2-CHLOROISOPROPYL)ETHER	2.2	(2700) 430
BIS(2-ETHYLHEXYL)PHthalATE	3	3
BORON	5000	NV
BROMODICHLOROMETHANE	5	50000
BROMOFORM	5	(5200) 840
BROMOMETHANE	(10) 3.7	(16) 3.7
CADMIUM	1.1	1.1
CARBON TETRACHLORIDE	5	(100) 17
CHLORDANE	0.02	0.02
CHLOROANILINE, p-	20	20
CHLOROBENZENE	30	50

TABLE 6: Extract and Ground Water Standards for Shallow Soils		
Contaminant	Potable Ground Water	Non-potable Ground Water
	µg/L	µg/L
CHLOROFORM	5	(1200) 430
CHLOROPHENOL, 2-	0.3	4400
CHROMIUM(III)	50	200
CHROMIUM(VI)	11	11
CHRYSENE	0.2	0.7
COBALT	10	10
COPPER	2.5	2.5
CYANIDE	5.2	5.2
DIBENZO(a,h)ANTHRACENE	0.2	0.25
DIBROMOCHLOROMETHANE	5	50000
DICHLOROBENZENE, 1,2- (o-DCB)	3	760
DICHLOROBENZENE, 1,3- (m-DCB)	630	760
DICHLOROBENZENE, 1,4- (p-DCB)	1	760
DICHLOROBENZIDINE, 3,3'-	\$2.5	500
DICHLORODIPHENYL DICHLOROETHANE, P,P'-(DDD)	0.6	0.6
DICHLORODIPHENYLDICHLOROETHYLENE, P,P'-(DDE)	20	20
DICHLORODIPHENYLTRICHLOROETHANE, P,P'-(DDT)	0.05	0.05
DICHLOROETHANE, 1,1-	70	9000
DICHLOROETHANE, 1,2-	5	(110) 17
DICHLOROETHYLENE, 1,1-	(4.1) 0.66	(4.1) 0.66
DICHLOROETHYLENE, CIS-1,2-	70	70*
DICHLOROETHYLENE, TRANS-1,2-	100	100*
DICHLOROPHENOL, 2,4-	0.3	370
DICHLOROPROPANE, 1,2-	5	(58) 9.3
DICHLOROPROPENE, 1,3-	1.4	(24) 3.8
DIELDREN	0.02	0.02
DIETHYL PHTHALATE	4	4
DIMETHYL PHTHALATE	3	3
DIMETHYLPHENOL, 2,4-	140	2100
DINITROPHENOL, 2,4-	42	150

TABLE 6: Extract and Ground Water Standards for Shallow Soils		
Contaminant	Potable Ground Water µg/L	Non-potable Ground Water µg/L
DINITROTOLUENE, 2,4-	0.5	230
DIOXIN/FURAN	0.000015 (TEQL)	0.000015 (TEQL)
ENDOSULFAN	0.12	0.12
ENDRIN	0.05	0.05
ETHYLBENZENE	2.4	(32000) 28000
ETHYLENE DIBROMIDE	1	(21) 3.3
FLUORANTHENE	130	130
FLUORENE	29	29
HEPTACHLOR	0.01	0.01
HEPTACHLOR EPOXIDE	3	(37) 5.9
HEXACHLOROBENZENE	(1.0) 0.62	(3.7) 0.62
HEXACHLOROBUTADIENE	0.45	(5.4) 0.87
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	0.5	0.5
HEXACHLOROETHANE	2.5	(78) 12
INDENO(1,2,3-cd)PYRENE	0.2	0.27
LEAD	3.2	3.2
MERCURY	0.02	0.02
METHOXYCHLOR	0.05	0.05
METHYLETHYL KETONE	350	50000
METHYL ISOBUTYL KETONE	350	50000
METHYL MERCURY	0.012	0.012
METHYL TERT BUTYL ETHER	700	50000
METHYLENE CHLORIDE	50	13000
METHYLNAPHTHALENE, 2- (*1)	10	1500
MOLYBDENUM	730	730
NAPHTHALENE	21	620
NICKEL	100	160
PENTACHLOROPHENOL	13	13
PETROLEUM HYDROCARBONS F1 (C6 - C10) *	NV	NV
PETROLEUM HYDROCARBONS F2 (>C10 - C16) *	NV	NV

TABLE 6: Extract and Ground Water Standards for Shallow Soils		
Contaminant	Potable Ground Water µg/L	Non-potable Ground Water µg/L
PETROLEUM HYDROCARBONS F3 (>C16 – C34) *	NV	NV
PETROLEUM HYDROCARBONS F4 (>C34) *	NV	NV
PHENANTHRENE	6.3	6.3
PHENOL	2600	2600
POLYCHLORINATED BIPHENYLS	0.2	0.2
PYRENE	4	4
SELENIUM	5	5
SILVER	0.25	0.25
STYRENE	100	(5900) 940
TETRACHLOROETHANE, 1,1,1,2-	5	(38) 6
TETRACHLOROETHANE, 1,1,2,2-	1	(140) 22
TETRACHLOROETHYLENE	5	5
THALLIUM	2	40
TOLUENE	24	(17000) 5800
TRICHLOROBENZENE, 1,2,4-	50	50
TRICHLOROETHANE, 1,1,1-	200	200
TRICHLOROETHANE, 1,1,2-	5	9400
TRICHLOROETHYLENE	50	50
TRICHLOROPHENOL, 2,4,5-	63	63
TRICHLOROPHENOL 2,4,6-	2	970
VANADIUM	20	20
VINYL CHLORIDE	(1.3) 0.5	(1.3) 0.5
XYLENES	300	(35000) 5600
ZINC	110	110
NITRITE	200	200

() Standards value in brackets applies to medium and fine textured soils

* For a site to meet this standard, there must be no evidence of free product, including but not limited to, visible petroleum hydrocarbon film or sheen present on groundwater, surface water or in any groundwater or surface water samples. Potable Groundwater must be free of objectionable petroleum hydrocarbon odour and taste.

(*1-) 2-methyl naphthalene soil standard is applicable to 1-methyl naphthalene with the provision that if both are detected in the soil, the sum of the two concentrations cannot exceed the soil standard.

